

KUSTOM

OWNER'S MANUAL

KGA16 / KGA16R

Thank you for purchasing the Kustom KGA16/16R model guitar amplifier. Kustom has listened to musicians throughout the world and stands proudly behind each and every one we make. It was designed with your needs in mind. Feature laden, great sounding, able to adapt to all kinds of music, this amplifier really delivers what you have been looking and waiting for. Whatever style you choose, it's ready!

Kustom, with a 30 year tradition of excellence in design, proudly delivers to you this amp and rewards you with a rugged and dependable amp designed and engineered in the USA. Again, thank you for your purchase. Please take a few minutes to learn about all the professional features that are built in.

SPECIFICATIONS

Model	Power	Equalizer	Channels	Impedance	Effects	Amplifier Type	Dimensions	Weight
KGA16	16 W	4 Band	Two	8 Ohms	N/A	Bi-Polar Transistor	13"x15.76"x8.70"	18 lbs.
KGA16R	16 W	4 Band	Two	8 Ohms	Reverb	Bi-Polar Transistor	33x40x22cm.	7.27 kg.

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY TO NOISE INDUCED HEARING LOSS BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS

8
6
4
3
2
1
1/2 HR. or LESS

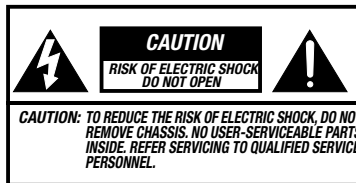
SOUND LEVEL db FLOW RESPONSE

90
93
95
97
100
103
110

ACCORDING TO OSHA, ANY EXPOSURE IN THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS. EAR PLUGS OR PROTECTORS IN THE EAR CANAL OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS. IF EXPOSURE IN EXCESS OF THE LIMITS AS PUT FORTH ABOVE, TO INSURE AGAINST POTENTIALLY HARMFUL EXPOSURE TO HIGH SOUND PRESSURE LEVELS. IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF INDUCING HIGH SOUND PRESSURE LEVELS, SUCH AS THIS AMPLIFICATION SYSTEM, BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

WARNING!

- THIS APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING. NO OBJECTS FILLED WITH LIQUIDS SUCH AS VASES SHALL BE PLACED ON THE APPARATUS.
- TO AVOID ELECTRICAL SHOCK, DO NOT DISASSEMBLE. REFER SERVICING TO QUALIFIED PERSONAL ONLY!



AVIS: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR.



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.

IMPORTANT

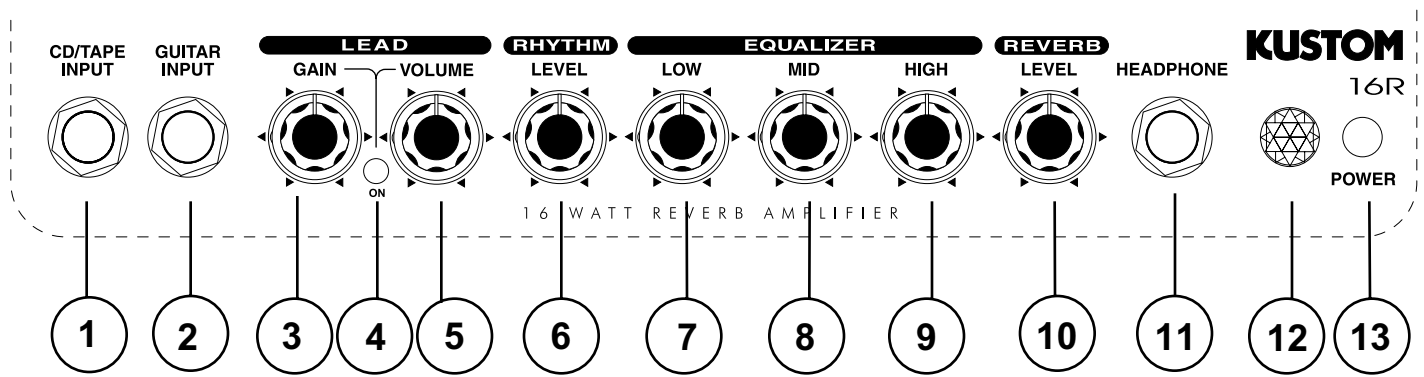
1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be kept for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water i.e. bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat, such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type indicated on the back of the amplifier near the power supply cord.
9. Do not break off the ground pin of the power supply cord.
10. Power supply cords should always handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts and vinyl covering may be cleaned with a damp rag.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation ports or any other openings.
15. This unit should be checked by a qualified service technician if:
 - A. The power supply cord or plug has been damaged.
 - B. Anything has fallen or been spilled into the unit.
 - C. The unit does not operate correctly.
 - D. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work must be done by a qualified service technician for warranty repairs.

CAUTION

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUDSPEAKER SYSTEM. PLEASE BE AWARE THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE MASTER VOLUME CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

KUSTOM

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1.) CD/Tape Input - this 1/4" 3 conductor jack will allow you to plug in a CD player, tape or any other source to practice along with. It sums the left and right signals into a mono signal and passes it through to the amplifier section. To control the volume of the source, adjust the output volume of the device. We suggest you turn the volume all the way down then plug in and adjust the volume according to your taste.

2.) Input Jack - this is a 1/4" 2 conductor input jack for plugging in your instrument. It is intended for guitars but will accept other instruments as well.

3.) Lead Gain - adjust this clockwise to increase the amount of distortion you add to the overdrive signal. Used in the lower ranges of the control, you get a less distorted sound, a "bluesy" tone. As you increase the gain, you add tremendous amounts of distortion to the signal for a harder edged "crunch" tone.

4.) Channel Switch - this switch selects which preamp you are using. It will switch between the Rhythm and Lead channels.

5.) Lead Volume - this control is the output volume control for the Lead Channel. It follows the same tone circuit as the other channel. It's gain structure is determined by the lead gain control but this serves as the overall master volume for this channel.

6.) Rhythm Level - this is the volume control for the clean channel. It's gain structure is preset for maximum signal before distortion and determines the output level of the amp.

7.) Bass - this control is the bass control. It is passive and set to shelve frequencies at 100 Hz. This will effect the low frequency signals. Turning it fully clockwise, the signal is left alone. Turning it counterclockwise, the lows will be rolled off.

8.) Mid - this control is the midrange control. It is passive and set to shelve frequencies at 700 Hz. This will effect the middle frequency signals. Turning it counterclockwise, your signal will "hollow out" the mids which is popular in today's music.

9.) High - this control is the high control. It is passive and set to shelve frequencies at 4KHz. This will effect the high frequency signals. Turning it fully clockwise, the signal is left alone. Turning it counterclockwise, the highs will be rolled off.

10.) Reverb Level - (only on the KGA16R). This control adds the spring reverb and mixes it into the main signal buss. Reverberation creates a effect like a trail with the sound. It lets the notes "hang in the air" longer, extending the sound.

11.) Headphone Jack - this is a 1/4" 3 conductor jack for plugging headphones. It will sum the signal and put the sound in both ears, thereby creating a pseudo-stereo sound. Volume will be determined by the volume control on the channel you are on. It will disconnect the internal speaker when plugged into. This will allow quiet practicing.

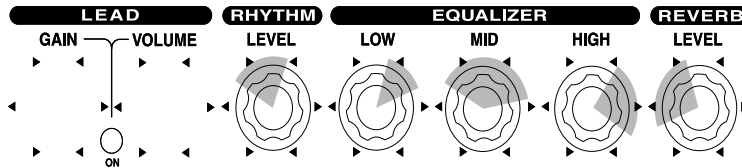
12.) Jewel Light - this jewel light lets you know that the amplifier is on.

13.) Power - this switch turns on and off the AC power to the amp.

Back Panel - this is a 2 conductor 1/4" speaker output jack. This will disconnect the internal speaker and allow an external speaker cabinet to be employed. Rating is 8 ohms.

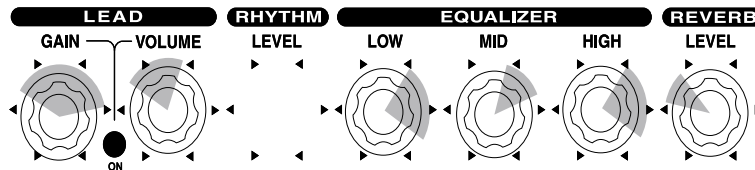
Suggested Settings

(These settings are general starting points. They are designed to get you close to the sound you are looking for. If the control is not shown, then it doesn't apply to this particular sound.)

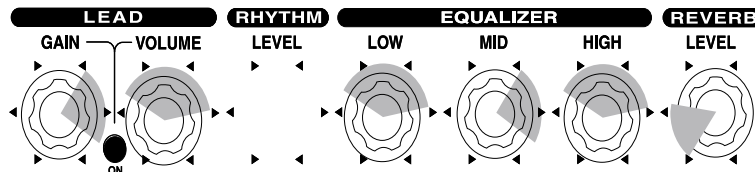


Clean Rhythm or Country Guitar - these settings are the basic clean sounds and for general rhythm guitar, country lead guitar, funky/chunky rhythm sounds. Usually, country guitar is a brighter, more trebly edged sound. The bottom end depends on what type of guitar you are using. Reverb depends on taste.

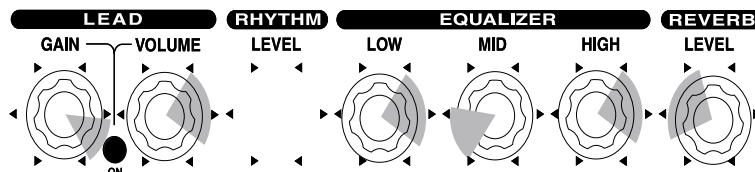
Rhythm guitar is mostly a clean full type of sound. A little less treble than the country sound and a bit more midrange. Reverb, again depends on taste.



Blues Lead or Mellow Crunch - this setting is particularly useful in blues or softer rock songs. It is good for leads as well as rhythm parts and good for power chords in back of leads. You need to switch to the lead channel to make these settings work. Blues, depending on the guitar you use, usually adds treble but with more midrange and a "fat" bottom end. This does not have as much gain as full out crunch, adjust the gain control to the amount of distortion you desire. Blues usually has a reverb trail on the notes. Adjust to taste.



Alternative/Harder Edged Rock - this setting will deliver more of a cutting tone. Whether used for rhythm or lead sounds, it will "cut" through the drums and get you heard. If you need more "grundle", increase the gain control for more distortion. This style of music requires a slightly thinner, harder edged tone full of midrange. Less reverb is required as it tends to muddy up faster songs. Adjust to taste.



Heavy Metal/Maximum Crunch - this setting is a good starting point for the "notched out middle" sounds associated with metal and heavy alternative sounds. Adjust the treble, low end, and reverb to taste. Usually for a rhythm tone, you want to have more lower end and less for leads. Distortion is an integral part of this style of music and this amp delivers it quite well.